

A STUDY ON DYSLIPIDEMIA ASSOCIATED WITH CHRONIC KIDNEY DISEASE AND THE ATHEROGENIC INDEX OF PLASMA IN VARIOUS STAGES OF CKD

ABSTRACT

INTRODUCTION :

Chronic kidney disease (CKD) is associated with high risk for cardiovascular disease (CVD). This association is multifactorial, but CKD is often associated with dyslipidemia, which likely contributes. Patients with CKD have dyslipidemia even at early stages of renal dysfunction and dyslipidemia tends to progress with deterioration of kidney function.

OBJECTIVES :

To study the pattern of dyslipidemia in various stages of CKD and to assess the cardiovascular risk by correlating the atherogenic index of plasma to various stages of CKD

METHODS :

85 patients were carefully selected after assessing their eligibility using the inclusion and exclusion criteria. History, clinical examination and biochemical investigations were performed. Blood for the assessment of lipid profile was collected after a minimum of 8 hours fasting and a light fat free diet on the previous day. Data was analysed using SPSS software.

RESULTS :

Patients with chronic kidney disease were likelier to have higher levels of triglyceride, VLDL - C and lower HDL values and as the stage of CKD progressed, the abnormalities in TGL and HDL values increased. There is no significant difference in the lipid levels between the diabetic and non - diabetic CKD population. Dialysis patients had a worsened lipid abnormality when compared with the pre dialysis patients. Atherogenic index of plasma was calculated, which showed a significant negative correlation with the stages of CKD.

CONCLUSION :

Lipid metabolism is significantly altered in most patients with renal failure. Our results indicate that CKD patients show significant abnormalities of lipid metabolism such as hyper - triglyceridemia, hyper - cholesterolemia and low HDL - C which contribute to atherosclerosis and cardiovascular diseases. Further research is needed to confirm whether early detection and treatment could be helpful in the prevention of adverse clinical outcomes in CKD patients.

KEY WORDS :

Dyslipidemia, chronic kidney disease, atherogenic index of plasma